IN THE SPECIFICATION

Kindly amend pages 8-11 of the instant specification as shown below for the purpose of correcting all occurrences of the reference numeral associated with the control unit to read 50 rather than 51 as previously shown:

Page 8, last paragraph, please delete and substitute the following:

Aspects of the spherical aberration compensation subsystem will now be described in more detail. As shown in Figure 1, the subsystem includes a control unit 50 arranged to read in thickness profile data stored in the lead-in zone. The control unit 50 is also arranged to process the data so read, and to output control data corresponding thereto to the compensation signal generator 22. The output data is used by the signal generator 22 to generate a signal causing the compensator 20 to add an amount of spherical aberration compensation to the beam corresponding to the thickness of the transparent layer 2 at the radial position currently being scanned. The control unit 50 preferably runs a computer program, or part of a suite of computer programs that cooperates with processing circuitry of the detection system 16.

Page 9, first three complete paragraphs please delete and substitute the following:

The steps involved in evaluating the compensation signal required to account for thickness variations will now be described, with reference to Figures 4, 5 and 6.

Referring firstly to Figure 5, at step 501 the control unit 50 identifies the position of the thickness data on the information layer 3. In the present embodiment, the data is stored in the lead-in zone, so step 501 involves the control unit 50 instructing the scanning device to read in data stored in the lead-in zone. The detection system 16 reads at step 503 data from the identified area and passes this data to the control unit 50, which stores it as a data file.

Next, the control unit 50 identifies at step 503 a first reference position. The first reference position may be a predetermined position, either stored in the scanning device or read from the thickness profile data stored in the lead-in zone, or may be selected after analysis of the thickness profile data. When selected after analysis of the thickness profile data, the first reference position is preferably selected to be a radial position having a thickness value near or at one end of the range of the thickness values. The same applies to a second reference position, to be described in further detail below, which may be either predetermined or selected after analysis of the thickness data. If selected after analysis of the thickness profile data, the second reference position is preferably a position having a thickness value near or at the other end of the range of thickness values. In any case, the first and second reference positions should have different thickness values, so that a scaling factor relating the thickness deviation (in arbitrary units) to the corresponding compensation signal may be calculated after testing of the optical disc in the scanning device.

Page 10, second to last paragraph, please delete and substitute the following:

Referring now to Fig. 6, which illustrates a spherical aberration compensation procedure when the thickness profile data is held in the form of parameters of a thickness profile function, the control unit 50 first detects whether the optical head has been moved to a new scanning position, step 601. If the optical head is in a new scanning position, the control unit 50 retrieves the thickness profile data, step 603, and applies the function corresponding to the thickness profile data to calculate the thickness deviation at the current radius, step 605. The control unit 50 then converts the deviation value to a compensation signal value by applying the previously-calculated scale factor, step 607, and instructs the signal generator 22 to apply the appropriate compensation signal at step 609 to the compensator 20.

Page 11, first two paragraphs, please delete and substitute the following:

Referring now to Fig. 7, during a scanning operation, which in the case of a read-only disc may be a read operation, and in the case of a recordable or rewritable disc may be a read operation or a write operation, the control unit 50 detects whether the optical head has been moved to a new scanning position in step 701. If the head is moved to a new scanning position, the control unit 50 retrieves the thickness profile data at step 703, and detects whether the current radius is different to the locations at which thickness deviation data is available in the data file, step 704. If so, the current thickness deviation is read from the data file, step 707. If the current radius is different to one of the

locations available in the data file, interpolation of the deviation is carried out between the two adjacent locations in the data file, to calculate a current expected thickness deviation at the current radius, step 705. With the read or calculated deviation, the deviation value is converted by the control unit to a compensation signal value, step 709, which is supplied to the signal generator 22, which applies the appropriate compensation signal to the compensator 20, step 711.

In a further embodiment of the invention a multi-layer optical disc, comprising at least first and second information layers and corresponding first and second transparent layers is provided. There are thus at least two transparent layers, each of which have been applied to their respective information layers via spin coating, and which may have a corresponding thickness variation. In this embodiment one or more read-only portions of the dual layer optical disc includes two sets of thickness profile data - one for the first transparent layer and one for the second transparent layer. Variations in thickness of each of the transparent layers are specified and the control unit 50 calculates corresponding current scale factors for each layer, as described above, and, for each of the information layers calculates the adjustment required along the radius of the disc when scanning either of the two information layers.